



## RESPONSE TO PEER REVIEW COMMENTS

A draft Methodology for *REDD – Avoiding Planned Deforestation* was developed by Winrock International for potential approval by the American Carbon Registry (ACR).

All new methodologies, whether developed internally or brought to ACR by external parties, undergo a process of public consultation and scientific peer review prior to approval.

This methodology was first posted for public comment from August 10 through September 7, 2010. The revised methodology was then submitted to three anonymous scientific peer reviewers, experts in the field of forest carbon and REDD. The reviewers’ comments are provided verbatim below, organized by section of the methodology, along with the methodology author’s responses to each. Two rounds of peer review, responses, and revisions to the methodology took place.

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## General

	First review	Response	Second review	Response
1	The methodology has good points, but needs major revisions in particular in sections related to <b>additionality, leakage and monitoring</b> . In the additionality section, further guidance should be given to Steps 1 and 2 (some of this guidance is already in section B. Estimation of Baseline Carbon Stock Changes and GHG Emissions, it is only necessary to transfer to the right section). Also, it seems that Step 2 should be preferred to Step 3, and when applying Step 2, preference should be given to Options II and III, instead of Option I. In the leakage section, revisions are needed to incorporate the procedure to avoid leakage and to limit deductions only when the leakage is attributable to the project activity. In	These comments are addressed in more detail in the relevant sections below.	ACR and/or proponent addressed many of the comments properly.  Nevertheless, there are still some follow-up comments and suggestions (refer to comments in the relevant sections below).	See individual responses below

	First review	Response	Second review	Response
	the monitoring section, is not clear how an APD project activity could trigger deforestation and degradation in the project scenario. Revision is needed to better explain the issue (Section on Monitoring Degradation has a text that better explain the context in which even in the project scenario emissions could occur. Similar explanations could be given in the Section on Monitoring Deforestation).			
2	All mentions to “REDD Project Activities” should be corrected to “REDD APD Project Activities”, to make sure that the methodology is only for avoiding planned deforestation.	Change has been made.	Addressed properly. However, the Contents still have a section header called REDD Project Activities (page 14). This should be changed to REDD ADP Project Activities.	Change made
3	This methodology has many good points and is very well thought through. Most of the equations are well presented and easy to follow. A few equations need some correcting. There are a few key points which need rethinking and better elaboration. First, it would be good to better define the scope of the methodology. It is not clear at the beginning that activities that enhance C stocks and that result in degradation should be included here. Including these activities seems inconsistent with a crediting period of only 10 years. Harvested wood products (HWP) do not appear to be properly accounted for and the current	I believe in combination with the standard the scope is clear. Baseline degradation is excluded, there is no enhancement of carbon stocks, see detailed responses below.	Degradation is not required for enhancement of C stocks. See comment below.	See below

	First review	Response	Second review	Response
	equations count them double as emissions, rather than as conserved pools.			
4	Leakage is the most problematic element in this methodology and needs to be rethought. The procedures do not even try to establish cause and effect links between increased deforestation and the project. Any increase in deforestation for any reason is attributed to the project in question. The approach to market leakage also needs to be rethought. The current procedures are based on activity displacement, not market forces. The way uncertainty is dealt with also needs some reconsideration, but there are many good elements in the proposed approach.	These comments are addressed in more detail in the relevant section below.	The revisions handle most of the concerns; nevertheless further changes are still needed.	See responses below
5	It seems that some discussion of QA/QC procedures in measurement and accounting is necessary. Also, some discussion is necessary on the need for consistent time series and how to handle consistency if there are revisions to measurement methods.	These comments are addressed in more detail in the relevant section below.	Further explanation is still needed	See responses below and in CPES
6	Finally this methodology deals only with C accounting and does not cover other dimensions of project design. The ACR should consider whether it wants to include standards for projects to meet in other areas such as environment, sustainable development, FPIC, community participation, protection of indigenous rights, etc. These issues are rather controversial in the international negotiations, but we already see some standards becoming	[ACR response]: ACR generally addresses only GHG accounting in GHG methodologies, but has minimum requirements in its standards for social and environmental aspects, and accepts optional added certifications against these aspects.	Adequately addressed by ACR responses.	No further comment

	First review	Response	Second review	Response
	popular like CCBA, PlanVivo etc.	<p>The ACR Standard requires all projects to demonstrate that the project will have net positive community and environmental impacts, to put in place a plan for mitigating any negative impacts, and to disclose in required Annual Attestation any negative impacts or claims of negative impacts by community members.</p> <p>In addition, projects may complete an additional certification, such as using the CCB Standards or other similar standards, to document positive social, economic, environmental, or biodiversity benefits. Such projects will have a separate designation on the serial numbers of their ERTs. This is optional because there is an added cost and may be a corresponding price premium. ACR encourages project proponents to consider these added certifications, particularly for REDD, and agrees that many voluntary buyers are increasingly demanding them.</p>		
7	Historically my sense has been that a “project” may not be the best way to address most kinds	<p>No response necessary.</p> <p>[ACR response]: ACR recognizes</p>	Adequately addressed by ACR responses.	No further comment

	First review	Response	Second review	Response
	<p>of planned deforestation threats. While doing things like reducing new road construction are critically important to stabilizing or reducing deforestation rates, trying to quantify the results of that work in a credible and accurate way at a project scale is a real challenge given baseline difficulties. At a project level, where deforestation is “planned” but not yet underway or just being initiated, it seems there is a particularly great deal of room for error in the baseline, relative to what is happening in a larger context. Hence the methodology calls for “6 proxies” to draw from, which then seems impractical.</p> <p>Given that planned deforestation threats are often associated with public agency land use planning and federal or state appropriations, it may be more appropriate to consider many of these kinds of activities in the context of state level or national approaches.</p> <p>I appreciate ACR’s strong attempt at this here, but there are some points which I will make suggesting that ACR hasn’t quite fixed all of the issues within this APD REDD methodology.</p>	<p>that jurisdictional (e.g. state- or national-level) approaches to reduce deforestation, along with guidelines for “nesting” projects within jurisdictions, are also important and is separately working on protocols for such activities. Recognizing the significant interest in project-level REDD, however, we believe robust methodologies are also needed at the project level.</p>		

**I. Scope, Definitions, Applicability and Eligibility**

**I.A Scope**

	First review	Response	Second review	Response

	First review	Response	Second review	Response
1	This section should include some statements about why and how enhancement of carbon stocks is included in this methodology. In later sections there are references to thinning, tree planting for leakage control, etc. The full scope of activities that will be undertaken in APD projects needs to be clear from the outset.	Enhancement is not included. Ex post monitoring is required. We believe the scope is complete.	Scope is now clear; however enhancement is included if the baseline is deforestation (sec 2.3) or if it occurs in the leakage belt.  The intention of the reviewer was to be made clear that this method addresses both emissions and sinks in this section.	No credit can be given for increases in stocks in the leakage belt. The leakage belt can only ever be a net negative to the project.  The following sentence was added to the scope:  Gains in carbon stock are accounted in areas that are deforested in the baseline.

## I.B Definitions

	First review	Response	Second review	Response
1	Additional definitions could be added to facilitate the reading of the methodology, e.g.: agent of planned deforestation, deforestation agents' classes, etc.	We elect not to. Other items are defined in the text at appropriate places. We do not wish to overly extend the document.	Further explanation is still needed in the actual methodology with the aim on increase clarity.	Explanations are added where the authors saw need. Are there explicit definitions missing?
2	The definition of peatland needs to be revisited. The surface layer needs to be clearly defined. For a minimum percentage to be included in this methodology, it is necessary to know the depth of the surface layer. Different countries will have different numbers. If you sample lower down in the surface profile, you may not reach	We have replaced the definition with:  Peat shall be defined as organic soils with at least 65% organic matter and a minimum thickness of 50 cm. (Rieley, J.O. and S.E Page. 2005. Wise Use of Tropical	Addressed properly.	No further comment

	First review	Response	Second review	Response
	the 65% organic material minimum to be considered a peatland under this current definition.	Peatland: Focus on Southeast Asia. Alterra, Wageningen, The Netherlands. 237 p.)		

### I.C Applicability Conditions

	First review	Response	Second review	Response
1	<p>Some of applicability conditions could be better explained, for instance:</p> <p><b>“Project Proponents must be able to show control over the project area and ownership of carbon rights for the project area”</b> – the means of “control over the project area” could be better defined, in particular specifying how long in the future PP needs to secure control. Methodology should advocate for the inclusion of situations where the Project Developer does not own the land but the landowners have agreed to let the Project Proponents develop the project on their behalf. This needs clarification, as one might interpret it to require that the project proponent themselves own/control the project lands and the rights to carbon, which would be too restrictive considering that many times Project Developers do not own the lands were the projects occur.</p> <p>One possible correction could be: "land tenure must be clear, unique and uncontested; however, it is not required that the Project Proponent retains land ownership. While this</p>	<p>Suggested text has been incorporated. Now reads:</p> <ul style="list-style-type: none"> <li>Project Proponents must be able to show control over the project area and ownership of carbon rights for the project area. Land tenure must be clear and uncontested; however, it is not required that the project proponent retains land ownership.</li> </ul> <p>[ACR response]: The issue of land title vs. offset title is addressed in the ACR Forest Carbon Project Standard:</p> <p>"The Project Proponent is the individual or entity that undertakes, develops, and/or owns a project. The Project Proponent and forest landowner owner may be the same or</p>	Adequately addressed by ACR and author’s comments/ responses.	No further comment

	<b>First review</b>	<b>Response</b>	<b>Second review</b>	<b>Response</b>
	<p>just says project owner must 'show control' over project area and ownership of carbon rights, but not necessarily ownership of property itself, this needs to be clarified in the current language. Another suggestion is to restate as "tangible influence" or something along those lines, rather than "control". Some policy approaches may not be through direct control, but rather through incentives or other approaches.</p> <p><b>Rights to carbon</b></p> <p>This might be a problem with the standard in general, not just the methodology, but worth mentioning here. In many instances, Project Developers do not ever acquire the rights to carbon, yet would be defined as the Project Proponent - under these rules, the project would be ineligible because the standard and the methodology both require that PP own the rights to carbon: "Land title may be held by a person or entity other than the Project Proponent provided the Project Proponent has clear, unique and uncontested offsets title (<i>ACR Standard</i> pg 17)." If Project Developers are working in an advisory capacity to the owner of the carbon rights, presumably they could be listed as "project developer", so the project would not be ineligible? Both the standard and methodology could change the language to: "rights to carbon must be clear, unique and uncontested; however, it is not required that the Project Proponent retains carbon rights."</p>	<p>different entities. The Project Proponent shall document that effective control exists over the GHG sources and/or sinks from which the reductions/removals originate. The Project Proponent need not own the forest lands or GHG sinks thereon, provided the Project Proponent can document that control over GHG sources and sinks, land title, and offset title is clear, unique, and uncontested." (<i>ACR Forest Carbon Project Standard</i> pg 18).</p> <p>With regard to offset title, ACR does not require that the Project Proponent hold offset title as long as offset title can be documented and is clear, unique, and uncontested:</p> <p>"Project Proponent shall provide documentation and attestation of undisputed title to all offsets prior to registration, including chain of custody documentation if offsets have ever been sold in the past. Title to offsets shall be clear, unique, and uncontested." (<i>ACR Forest Carbon Project Standard</i> pg 18).</p> <p>Only one entity may hold offset</p>		

	First review	Response	Second review	Response
		title at any one time. If project developers are only acting in an advisory capacity and never hold offset title, the ACR Project Account should be held by the entity with offset title.		
2	<b>“All land areas registered under the CDM ...”</b> Since the CDM doesn’t allow REDD activities, is not necessary to have the reference to CDM. It should be deleted.	Agreed; mention of CDM removed.	Addressed properly.	No further comment
3	<b>“Prior to the area being deforested, the forest carbon stocks in the project area must be constant or increasing in the absence of the project”</b> - Why is this a requirement if enhancement of stocks is permitted by the methodology?	This has now been removed.	Addressed properly.	No further comment
4	<b>“Deforestation must be projected to occur within 10 years ...”</b> As written, the "project area" would only be those actual lands projected to be deforested within 10 years. This implies that some project areas are likely to be a patchwork of lands which may or may not be contiguous. In reality, it would be difficult to implement a full project in this fashion. It might make more sense to talk about a "project area" and a "creditable area". The project area would encompass a bounded area that includes all areas that are projected to be deforested within 10 years, along with the matrix of other lands upon which project activities (e.g. creation of a protected area, sustainable timber harvesting)	This has been removed. We can imagine situations where for huge projects deforestation might take 15 to 20 years.	Addressed properly.	No further comment

	First review	Response	Second review	Response
	occurs. Trying to project a baseline beyond 10 years is too uncertain. It is a valid concern, but there are other ways of addressing this without divorcing the creditable areas from the overall project area. This restriction is based off of the standard itself, which limits the crediting period of REDD projects to 10 years. Will this exclude/delay a substantial numbers of interventions for land use plans projecting beyond 10 years?			
5	<p><b>“Areas subject to unsustainable fuel wood collection ... shall be excluded”</b> – the rationale behind this applicability condition is not clear. Also, reading these applicability conditions, several questions appear: i) planned deforestation for fuel wood is automatically considered unsustainable by the definition given in footnote 5: should the collection for fuel wood be considered a one of the plausible baseline scenarios? ii) “Unsustainable illegal logging” should be considered exclusionary? iii) Is sustainable illegal logging accepted in the methodology? iv) Why should fuelwood or charcoal production be in a different methodology? The second D is only reflected by fire section but fuelwood is also a degradation driver. If the separate methodology is only to capture the benefits of a project, shouldn’t there be acknowledgement of fuelwood collection as a deforestation and degradation driver? Otherwise this is a RED methodology</p>	<p>This has now been removed. This is a RED methodology not REDD but falls under ACR REDD category.</p> <p>[ACR response]: Reducing degradation through fuelwood collection and other causes will be addressed separately in forthcoming ACR REDD methodologies.</p>	Adequately addressed by ACR and author’s comments/ responses.	No further comment

	First review	Response	Second review	Response
	instead of a REDD methodology?			
6	<b>In relation to the list of exclusionary criteria:</b> How are outside agents are determined? Is a forest products company with a head office overseas or in the capital, but that holds a concession considered external? Is there an alternative methodology that the reader should be referred to?	This has been removed. It is conservative as deforestation occurs regardless.	Further explanation is needed – Agreed that we will need a way to differentiate those external agents of change? If so, in ag economics, there are ways to determine outside agents and delineate external influence. It would be advisable to review the ag econ literature to determine exclusionary criteria. Just deleting it does not adequately address the issue.	We would agree wholeheartedly for unplanned deforestation. For planned deforestation the agent is almost by definition transparent. Whether the agent is located or headquartered somewhere distant is immaterial.
7	Some clarification would be helpful for each of the <b>exclusions</b> . There is likely to be a great deal of illegal deforestation in many countries, so the implication of this part of the methodology is significant. Guiding readers to other standards (e.g. Avoiding Unplanned Deforestation) would be helpful. For each the circumstances that are excluded from the methodology, are there other ACR methodologies, which would allow them, or are they ineligible under ACR?	There will be other methodologies. The standard defines the project types.  [ACR response]: This methodology is intentionally limited in its applicability, for Avoiding Planned Deforestation only. Other forthcoming ACR REDD methodologies will address unplanned deforestation and degradation, either in stand-alone methodologies or more	Adequately addressed by ACR and the authors' comments/ responses.	No further comment

	First review	Response	Second review	Response
		likely in a modular approach.		

## II. Defining project boundaries and selecting pools and sources

### II.A Geographic Boundaries

	First review	Response	Second review	Response
1	<p><b>“Geographic boundaries are fixed ex-ante and cannot change ...”:</b> this will impose limitations to the project, in particular in those cases where several participants (land owners) want to enter in the project at different points in time. The project could only be registered when the last participant decides to enter. This sentence should be revised to allow flexibility. Refer to AR CDM discussion on the issue for further explanations.</p>	<p>Text now reads:</p> <p>Geographic boundaries of specific deforestation parcels are fixed <i>ex ante</i> and cannot change over the Crediting Period <i>ex post</i>. New deforestation parcels may be added <i>ex post</i> and will be subject to additionality and baseline validation at the time of the next verification.</p>	Addressed properly.	No further comment

### II.B Temporal Boundaries

	First review	Response	Second review	Response
1	<p><b>Date at which the project baseline shall be revised:</b> the section treats two different topics: the renewal of the crediting period (which is not allowed by ACR); and the situation when it is necessary to update the baseline and project-specific risk assessment. These two different topics should be separated to avoid confusion.</p>	<p>This is really just summary text. We have tried to change the text to be more clear:</p> <p>In general, the baseline must be revised in order to renew the Crediting Period. This revision must occur at fixed</p>	Clarity is still needed; since section VI.C para 2 suggests that crediting periods are restricted to 10 years. It states that the crediting period cannot be renewed.	<p>Now reads:</p> <p>In the case of REDD-APD, because all planned deforestation in the baseline scenario must be projected to occur</p>

	First review	Response	Second review	Response
		ten year intervals. Revision may be needed more rapidly in the case of a reversal, in which case per the <i>Forest Carbon Project Standard</i> the baseline (and project-specific risk assessment) must be updated.	The reference to risk assessment should be addressed in that section.	within a defined period of time, and because planned deforestation can be avoided only once, there will be a limited number of 10-year Crediting Periods. Therefore Project Proponents are not required to monitor and verify, only to document project continuance, after the end of the final Crediting Period in which deforestation is projected in order to continue receiving periodic refunds of earlier buffer contributions in the event of no reversals. <sup>1</sup>  It is not clear what is meant by reference to risk assessment. Risk is dealt with in VI.A
2	<b>Start and end of the reference period:</b>	This is fine. We neither want	In the case of <u>planned</u>	Again we really do

<sup>1</sup> See *Forest Carbon Project Standard*, Chapter 5 Sections E and G.

	<b>First review</b>	<b>Response</b>	<b>Second review</b>	<b>Response</b>
	<p>Technically, this allows for the reference period to be a minimum of 7 years. Is that enough time? If not, they should push back the reference period start date. Is the intention to say at least 10 years? This timeframe is not clear. For example in projects where planned deforestation was for planned road construction: PP may want to estimate future clearing of land along the road, based upon the rate of clearing that occurred over past couple of years, immediately prior to project start date. In some cases, planned deforestation may not have historic precedent, and would be projected based only on the plan. It seems that a reference period is not relevant in such a case. Proxies would be important here. If you just used this area, this suggests that it would be necessary to look at the rate of clearing averaged out over a longer period of time. In this case, proxies would be critical. Would it really be defensible to base a 10-year projection of deforestation off of one year of data? A minimum of 7 to 10 years is appropriate as the reference period? Another possibility is to allow PP propose and justify a different period of time.</p>	<p>projects going too far back or only relying on data from the previous 2 or 3 years.</p> <p>Future clearing along a planned road would still be unplanned deforestation unless such clearing were for legal plantations etc.</p> <p>I think these concerns have more to do with the case of unplanned deforestation which is not covered by this meth.</p>	<p>resettlement or colonization schemes, could happen that there is a sustained influx of people for more than a decade after the construction of the road (e.g. Brasilia - Belem highway, for example and this was organized by the government). What happen after a certain period of time, could be interpreted as an unplanned deforestation. It may just be a question of unplanned as of what date?</p> <p>It also, would be good to hear the ACR approach taken to derive this seven years time period. Any empirical or economic rationale for choosing this minimum time period? If we were to allow PP to propose and justify a different time period, this might allow for planned plantations (especially those with short</p>	<p>want to focus on areas where parcels exist and it is the legal deforestation of these parcels that is avoided. If illegal deforestation is occurring along a legal new road we define that as unplanned deforestation.</p> <p>We are willing to relax the time criteria though to more adequately capture deforestation that continues for prolonged periods. We have made a change such that the start date of reference period can be up to 15 years in the past.</p>

	First review	Response	Second review	Response
			rotations) to make a case.	

### II.C GHG Assessment Boundary (Pools and Sources)

	First review	Response	Second review	Response
1	It would be useful to state also that enhancement of stocks over the project lifetime may be credited.	Technically enhancement is not allowed under this meth. All that is included is sequestration that would be foregone if an area were deforested. It is a very limited case but it represents genuine emission reductions achieved by the project.	Addressed properly.	No further comment
2	Since peat swamp forests were excluded, the mention in SOC in Table 2 is incorrect.	Agreed, now deleted	Addressed properly.	No further comment
3	(Table 3) Soils with high organic matter could have significant increases in decomposition if fertilized, so potential emissions may not be small. (This comment also depends on what is finally decided about peatlands projects. If peatlands are out, then this can be deleted.)	Yes peatlands are out	Addressed properly.	No further comment
4	(Table 3) The amount of nitrous oxide would certainly matter in forested wetland, fertilized and peat systems. Wetlands and peatlands contribute a significant amount of greenhouse gases to the atmosphere through natural emissions or loss of peat upon land use change or drainage.	Peatlands are excluded	Addressed properly.	No further comment

	First review	Response	Second review	Response
	<p>Wetlands are typified by flooding for long periods of time which results in sequestration of carbon over time as peat consolidates. Nitrous oxide is a product of denitrification, which is another mechanism of microbial decomposition of organic matter. Denitrification is the reduction of nitrate to N<sub>2</sub>O by microorganisms occurring while they decompose organic matter. For denitrification to occur, and for N<sub>2</sub>O to be produced, nitrate must be present in sufficient quantities. Various environmental factors other than hydrologic conditions can influence the types and emission rates of greenhouse gasses in wetlands and peatlands. Nutrient enrichment can have a major influence on gas emissions, and in fact can change the types of gases emitted. Since N<sub>2</sub>O is an end product of denitrification, inputs of nitrate (from agriculture or leaching) into these wetlands and peatlands can stimulate N<sub>2</sub>O production at the expense of CH<sub>4</sub>. And since N<sub>2</sub>O has a much higher CO<sub>2</sub> equivalents (or global warming potential) than CH<sub>4</sub>, eutrophication of these lands may result in a more significant global warming potential than those being maintained as natural areas. Certainly we should not encourage a protocol that might lead to the draining or eutrophication of peatlands. In certain soil types, like those that are often nutrient-poor (oligotrophic), we need to consider the impacts of creating monitoring loopholes to ignore below ground processes</p>			

	First review	Response	Second review	Response
	(just because they might be harder to measure).			
5	The Section 3 “Tool: Determining the significance ...” should be renamed to “Procedure to determining the significance ...”, since the tool is the CDM “Tool for testing significance of GHG emissions in A/R CDM project activities”.	OK, change made	Addressed properly.	No further comment
6	Does the 3% rule [in II.C.3.c] make sense in the cases of REDD APD?	I can’t see why not...	Because we are talking about emissions reductions here, if you omit more for any reason, you are still being conservative. So for example, if soil OM is 6% of the emissions reductions, but it is deemed too expensive to measure, the project is not getting credit for additional ERs that it is producing. I don’t see what this threshold gains.  Further explanations are required	The methodology allows you to omit if conservative. The 3% rule only comes into play for net emissions.  To be clear I added: “The sum of all combined pools and sources excluded from accounting, <i>aside from exclusions for conservative reasons</i> , shall be less than 3% of total net GHG...”
7	Although the listed a priori insignificant emission sources are consistent with the CDM and VCS, it is worth noting that we had advised CCB in the past that these should not be automatically considered insignificant. In a few cases these emissions would be higher in the project case	Noted.	Addressed properly.	No further comment

	First review	Response	Second review	Response
	than in the baseline scenario for REDD. Excluding them would tend to be conservative.			

### III. Demonstrating Additionality

#### III.A Regulatory Surplus Test

	First review	Response	Second review	Response
1	Since Regulatory Surplus is covered within the Tool outlined in B, calling out Regulatory Surplus by itself in the beginning of the chapter seems both superfluous and potentially confusing. Section A, therefore, should be removed. If it is not removed, then it should be modified as follows: The standard itself actually says no "currently effective and enforced laws and regulations." I would push for the language in the methodology to be changed to "there is no existing and enforced law, regulation, statute, legal ruling, or other regulatory framework."	What we have done is leave Section IIIA, but deleted step 1b (consistency of credible land use scenarios with enforced applicable laws and regulations), so there is no repeat.  Text edited as you suggested.	Addressed properly.	No further comment
2	Since renewal of the crediting period is not allowed, second paragraph could be deleted.	Renewal is now allowed	This is why second paragraph could be deleted.	OK deleted

#### III.B Tool: Demonstration and Assessment of Additionality in REDD Project Activities

	First review	Response	Second review	Response
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	First review	Response	Second review	Response
1	Change "Project Proponent shall apply Steps 0, 1, 2 or 3, and 4" to "Project Proponent shall apply Steps 0, 1, 2 and/or 3, and 4", since in step 3 on page 19, the methodology indicates that step 3 may be used as an extension of step 2.	OK, changed	Addressed properly.	No further comment
2	<b>Sub-step 1a. Identify credible alternative land use scenarios:</b> In general, the way this is written is VERY confusing. This should and could be simpler for both execution by project developers and interpretation by verifiers. For instance, the 3rd bullet in substep 1a requires one of the alternative scenarios to be "REDD activities on at least part of the land within the project boundary" while the point of sub-step 1a was stated in the paragraph above to be "identify realistic and credible land-use scenarios that would have occurred on the land within the project boundary in the absence of REDD project activity." Another example of the confusing nature of the text - the 1st bullet in sub-step 1a requires one of the alternative scenarios to be "projected deforestation and/or forest degradation as estimated using the appropriate baseline methodology." This seems to be putting the cart before the horse, as the "appropriate baseline methodology" cannot be determined until the projected alternative land use is decided. Indeed, selection of the baseline scenario does not occur until sub-step 1c. The advice would be to entirely take out the bulleted example section	Hopefully the text has been clarified.	Addressed properly.	No further comment

	First review	Response	Second review	Response
	in sub-step 1a.			
3	Another part of the section that need improvement is “All land uses ... that existed at some point in time in the 10 year period before the Start Date, but no longer exist, may be deemed realistic and credible”. This needs to be strongly substantiated in particular with an assessment of economic feasibility of the proposed land use scenario. The fact that something happened in the past doesn’t automatically imply that will happen again. The text needs to be revised to make sure that the necessary assessments are made in the case of an historical evaluation.	I disagree. If it happened in the past it was feasible then so it can’t be pie in the sky now. If it makes the list then it is subject to tests etc. If it is not economically feasible now then the project is likely to be more feasible and additionality will fail.	This depends on what is currently feasible. An assessment should be made to demonstrate that the conditions of the past are current present. Stronger economic justification is needed here.	I think the reviewers are missing the point that this list merely identifies a list of possible land uses. Such a list should be as broad as possible to ensure all reasonable project alternatives are captured. This list is then tested through barriers and / or financial analysis.
4	<b>Sub-step 1b. Consistency of credible land use scenarios with enforced mandatory applicable laws and regulations:</b> the text should be revised to be consistent with applicability condition that doesn’t allow for illegal deforestation. In other words, is not possible to apply the 30% threshold in this case.	Step 1b has now been removed so as not to duplicate the regulatory surplus test in III.A.	Addressed properly.	No further comment
5	<b>Outcome of Sub-step 1b:</b> Clarification is needed why if only one alternative land use scenario is identified, the project is not considered additional. If that is the most likely alternative scenario to a REDD project, even if it is the only one, the project should qualify as additional.	Step 1b has now been removed so as not to duplicate the regulatory surplus test in III.A.	Addressed properly.	No further comment
6	<b>Step 2. Investment analysis:</b> further guidance is necessary in this section, since there is the	I think there is always the possibility of cheating in	Addressed properly. It is up to the verifier.	No further comment

	First review	Response	Second review	Response
	possibility of gaming. Land use scenarios could have been introduced (in the previous step) to demonstrate the economic feasibility of deforestation, i.e. a very profitable land use scenario (but not implementable) could have been introduced to demonstrate that the IRR is very high compare with a “conservation” scenario and/or a benchmark. In this case, the investment analysis has to demonstrate that this “very profitable land use scenario” is not hypothetical, but is implementable by PP.	additionality tests. This isn’t new text; it is directly derived from the CDM. It is really up to the verifier to avoid gaming as much as possible. Gaming would happen I think if users chose a bunch of very profitable alternative land uses to put against the project. It is the verifier’s responsibility to make sure the list is complete that there isn’t another more likely land use that is less profitable than the project.	Problem is the consistency between verifiers.	
7	<b>Sub-Step 2a. Determine the appropriate analysis method:</b> guidance should be given to the most appropriated ones. It seems unrealistic that a simple cost analysis is adequate, since a planned deforestation normally occurs to give space for an economic activity with higher revenue than the forest conservation. This indicates that Option II and III should be preferable than Option I.	I think that is clear. If there is a financial benefit options 2 or 3 must be used. I think some economic expertise is needed to do any of these tests. Typically I think we have seen under the CDM that users either easily pass financially or use barriers.	Edits are somewhat sufficient but would prefer to see more guidance here.	No further comment
8	Page 19, First arrow: delete the first “realistic”	Done	Addressed properly.	No further comment
9	Sub-step 3a, bullet 1, sub-bullet 1: Does “relevant geographical area” require some qualification? If it is deemed appropriate to qualify this reference, this is applicable elsewhere.	We now say in the same country.	Addressed properly.	No further comment
10	<b>Barriers relating to land tenure:</b> Is this an	I think it is realistic. A project	Reviewers still would like	Final tenure criteria

	First review	Response	Second review	Response
	appropriate barrier for this kind of project activity? Traditional tenure systems that are not coded in law are often adequate for tenure security. There may be a little too much wiggle room with this criterion as written.	would be necessary for the community to get the legal support to define its tenure and prevent a concession being awarded on its lands.	some clarification on the criteria here. We see many instances where tenure security is really tenuous and yet a REDD APD project could make a big difference, in particular in indigenous communities.	now rewritten to broaden out to encompass your concern: <ul style="list-style-type: none"> <li>Formal and informal tenure systems that increase the risks of fragmentation of land holdings or prevent the solidification of land ownership rights.</li> </ul>
11	<b>Other examples of barriers</b> should also be revised, and those that are not adequate to the REDD APD project activities situation should be eliminated from the list (e.g. Widespread illegal practices, taking into consideration that only planned and legal deforestation are allowed within this methodology).	Demographic pressure and widespread illegal practices were deleted.	Addressed properly.	No further comment
12	<b>Step 4. Common practice analysis:</b> If other REDD activities have occurred, but would not have occurred were it not for carbon revenue, then the REDD APD project should still be considered additional.	The section states: “other registered REDD APD Project Activities shall not be included in this analysis	Addressed properly.	No further comment
13	Page 22 – Summary: delete the numbering to not make confusion with the numbers of the steps.	Done	Addressed properly.	No further comment

	First review	Response	Second review	Response
14	Page 23: Between points 3 and 4, and between points 4 and 5: change “or” to “and/or”	Done	Addressed properly.	

#### IV. Baseline Methodology

	First review	Response	Second review	Response
1	The concept of a 'proxy area' needs to be better explained, in particular in situations where the deforestation was planned for specific types of projects, e.g. road construction. What would be a proxy area for this kind of project?	Road construction is an unplanned deforestation project type unless road construction is for large plantations. Road construction opens up areas for unplanned deforestation to occur.	Reviewers disagree. There are planned resettlement schemes associated with road construction. The Amazon is good example.  Proxy area should be explained still.	If resettlement schemes involve legal parcelization and legal ownership of land and clearance it would be planned. Legal roads opening up areas for illegal deforestation is unplanned.  The criteria in Section 1.3 in Baseline Methodology are detailed for proxy area definition. It is not clear what else is warranted.  This is now referred to from Section 1.2 if that was the issue

#### IV.A Baseline Stratification

	First review	Response	Second review	Response
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	First review	Response	Second review	Response
1	<p>Page 24, section 1, procedure:</p> <p>Would it not be better to recommend stratification prior to field sampling and indicate that complete randomization and ex-post stratification could result in over sampling of some strata and under sampling of others?</p>	<p>I believe we do. We say it is not required. Text has been revised to make this more clear:</p> <p>“Pre-stratification (prior to inventory) of the project area is not required, but may serve to avoid requirements for post-measurement stratification and may reduce sampling costs by helping to avoid the over-sampling of some strata and under-sampling of others.”</p>	<p>Addressed properly.</p>	<p>No further comment</p>
2	<p>VCS 2011 will require precision of +/-15% of mean, at 95% confidence level. The number of plots required may be similar given the wider range but higher confidence of VCS compared to the narrower range but lower confidence of ACR.</p>	<p>[ACR response]: The precision target of <math>\pm 10\%</math> of the mean at 90% confidence is in the ACR Forest Carbon Project Standard and applicable to all forest carbon projects. ACR has not as yet been presented any argument to revise this requirement.</p>	<p>With low precision and accuracy, are there uncertainty discounts to provide incentives to increase precision while maintaining conservativeness?</p> <p>The most important argument might be soil C in a large project area, but this is OK for now.</p>	<p>The methodology does decrease available offsets when precision targets are not met. This was included for exactly the purpose the reviewer recommends.</p>
3	<p>Page 25:</p> <p>Should the methodology recommend that within stratum variances should be lower than the between strata variance so that there is statistical validation of the strata chosen by the project developer?</p>	<p>We believe the method proposed of demonstrating that there is no gaming of strata should be sufficient and easily employed by those with varied statistical abilities.</p>	<p>Addressed properly.</p>	<p>No further comment</p>

#### IV.B Estimation of Baseline Carbon Stock Changes and GHG Emissions

	First review	Response	Second review	Response
1	Step 1.1 and part of Step 1.2 (Intent to deforest) <b>should be part of the additionality assessment.</b> These sections should be transfer to Section III. They do not affect directly the estimation of the baseline carbon stock changes, but are crucial to determining the additionality, in particular in Step 1 – Identification of alternative land use scenarios.	We like this idea and made the change suggested. These steps are now moved to Chapter III, Demonstrating Additionality, as a new STEP 1: Identification and demonstration of validity of planned deforestation activity.	Addressed properly.	No further comment
2	First part of Step 1.2 <b>should be part of demonstrating the applicability condition related to control and the legally permitted.</b> They should be transfer to Section I D Proof of Project Eligibility. They do not affect directly the estimation of the baseline carbon stock changes, but are crucial to determining the eligibility.	Demonstration of applicability conditions can occur anywhere within a methodology. We have moved most of this text to Chapter III, Demonstrating Additionality, under the new STEP 1: Identification and demonstration of validity of planned deforestation activity.	Addressed properly.	No further comment
3	<b>Rate of deforestation:</b> Since the deforestation is planned, shouldn't the planning documents be the basis for calculations rather than a proxy area?	Ideally this would be the case. However, how can you avoid forged documents and plans and how do you cover the situation where you have new ownership in the project case and the baseline agent of deforestation will not share documents.	Addressed properly.	No further comment
4	What kind of “verifiable plan” should be presented?	A verifiable plan is really up to the verifier themselves. This text has been approved by two	Addressed properly.	No further comment

	First review	Response	Second review	Response
		verifier organizations so clearly they believe they have the capacity and ability to determine this.		
5	<p>Why are 6 proxy areas sufficient? If the deforestation was already underway in the project area (e.g. road construction), it seems that this should be used as basis for projecting future deforestation (when the plan doesn't indicate planned rate). In a case like this, finding 6 proxy regions is burdensome and unnecessary. In some cases, the project area might serve as one or more proxy. Why not just 3 proxies? It is likely to be impractical in many cases to find 6 proxies that meet all of the conditions set out here and it is not clear that all of these conditions are really relevant? It would depend somewhat on the drivers of deforestation.</p> <p>Extending the proxy area to outside the country seems to be extreme risk.</p>	<p>The road construction concept is unplanned deforestation.</p> <p>We are prepared to change the required number but also realize you need a sufficient number to capture the representative rate. If just 3 then perhaps this could be gamed.</p> <p>We needed to cover the situation where the planned activity does not yet exist within the country in which case you would have to look outside the country to a neighbor.</p> <p>I will drop to 5 proxies.</p>	<p>See comments on road construction <i>versus</i> unplanned deforestation above.</p> <p>We understand the precautions for gaming the system. Also want to be practical and not assume that getting six proxies is manageable in each APD project.</p> <p>By earlier logic, this is the responsibility of the verifier.</p> <p>In relation to other country, but the policy environment will be very different as will trade relations etc...</p> <p>Further consideration is needed.</p>	<p>Note it is now 5 proxies. We do not want to go too low as it is likely possible to find some unusual cases that we do not want to make the basis for the project. Note this is principally to define the rate at which deforestation is occurring. I will decrease again to 4 but do not think we should go further down than that.</p> <p>But outside the country is essential for situations where nothing representative exists in the country. Note this is not a justification that a land will be deforested just the rate at which it will be deforested. I would not want to justify</p>

	First review	Response	Second review	Response
				additionality based on international proxies, but rate is reasonable.
6	<b>Condition 7:</b> How likely is it to get such a perfect match? These criteria seem overly restrictive, particularly the soil type criterion? Soil type must be at the level of the great group, soil order or at the level of the named unit? Wouldn't it be best to relax this criterion and tighten number 4, so that at least the proxy area is in the same country with the same land-use policies?	These were requirements derived from verifiers who wanted criteria they could test to show proxies are relevant. +/-20% of course gives a 40% range. We can loosen this requirement. Now we have +/-25%.	Addressed properly.	No further comment
7	<b>Likelihood of deforestation:</b> if deforestation of subject property was already underway in accordance with a government plan, finding samples of similarly zoned areas seems unnecessary. Why 5 years? Why differentiate between government control and others?	The issue here is that if the areas are under Government control we cannot know exactly when deforestation will occur. We know that Governments zone concessions on a huge scale but do not immediately sell the concessions or allow for deforestation of the concessions.	Addressed properly.	No further comment
8	<b>Risk of abandonment:</b> Shouldn't the proponent be allowed to explain why the project being considered is not likely to be abandoned as others have been in the past (e.g. construction of a new road)? Couldn't this be subject to manipulation with the choice of proxy areas? On the other hand: If deforestation of subject property was already underway in accordance with a government plan, finding a minimum of 5 proxy areas seems unnecessary. Should this	This is again another safety valve. We do not say the 5 closest concessions we just say 5 concessions. Projects just have to demonstrate that the common practice for the same land use type is not to deforest and abandon. Effectively this is an applicability condition. It is very hard to draw	Addressed properly.	No further comment

	First review	Response	Second review	Response
	be re/write as an applicability condition?	the line between requirements in the methodology and applicability conditions. I try to set them up such that applicability conditions are things that a user can look at immediately and know if their project will likely work or not. Methodology requirements sit in the methodology and likely require more work to know the outcome.		
9	Step 2, paragraph 2: Add/substitute the bold, underlined text: “Net carbon stock changes in the baseline are equal to the baseline pre-deforestation stock minus the long-term carbon stock after <b>planned</b> deforestation, <del>minus</del> <b>plus the</b> baseline stock that is harvested and stored in long-term wood products.” Note the way equation 5 is set up, all carbon removals on site are initially considered as emitted. The HWP stock is not emitted and should be added back to the stock difference to correctly estimate C stored in the baseline scenario.	First suggested change made (adding “planned”).  But subtracting wood products is correct. The baseline emission is equal to the baseline stock minus any stocks that are effectively not long term emissions. This is the stock in the post deforestation land use and the stock in long term products.	If you have 100 tons of C in biomass before deforestation and 10 tons in biomass after deforestation and 20 tons of C ends up in long-term storage in HWP, the correct estimate of emissions is 70 tons (100 – (10 + 20))?	We agree that the result is 70. We believe this should be written as 100 minus 10 = 90 minus 20 = 70.  If it was plus then we would certainly need your brackets otherwise it would be interpreted as (100-10)+20, at least by some.
10	Equation 3: The final term should be added as per the comment above.	See point immediately above	See question immediately above	See response above
11	Equation 3: In the section that follows, there are detailed descriptions of how to calculate the first two terms of the equation. The reader is never given details of how to calculate the	Wood products are calculated in CPES.E as is indicated in the text.  I really don’t understand the	Addressed properly.	No further comment

	First review	Response	Second review	Response
	third term, but is referred to another publication. A fourth term is elaborated for greenhouse gases, but it is not integrated in Equation 3. This term needs to be integrated into the equation. Calling this term simply “greenhouse gases” is confusing and it might be better to call it something like “other GHGs”	point about GHGs. These are handled in equation 6. The mathematics are correct.		
12	Page 31: Eqs. 4 and 5: The CPES equations refer to non-tree aboveground biomass, but the carbon stock equations in this methodology do not.	Now corrected.	Addressed properly.	No further comment
13	Section 2.2 : Insert as shown “Post-deforestation carbon stocks should be the long-term average stocks on the land following <b>planned</b> deforestation.”	Change made.	Addressed properly.	No further comment
14	Page 32: Equation 5: $C_{nontree,i}$ cannot be omitted or it will result in an overestimation of the emissions reductions.	Non-tree added in	Addressed properly.	No further comment
15	Step 3. It may be helpful to put a time horizon on these emissions (e.g. how long do N <sub>2</sub> O emissions from fertilization need to be estimated?)	All are by default throughout the crediting period. Note that elsewhere it is made clear fertilizer and fossil fuels are always optional	Addressed properly.	No further comment
16	Equation 6 explanation: $GHG_{BSL,E}$ GHG emissions as a result <b>of</b> <b>planned</b> deforestation activities within the project boundary in	Change made.	Addressed properly.	No further comment

	First review	Response	Second review	Response
	the baseline stratum $i$ at project year $t$ ; $t$ CO <sub>2</sub> -e			

#### IV.C Estimation of Baseline Uncertainty

	First review	Response	Second review	Response
1	<p>Page 33:</p> <p>Section 1 Procedure: IPCC GL present uncertainty only for Tier 1 factors. Are projects allowed to do Tier 1 accounting in this methodology? This seems inappropriate. Recently several publications (e.g. Asner 2010, Laumonier 2009) have shown for example that true estimates of aboveground biomass may be at variance by 20 – 30% from the IPCC average values for dense tropical forests. Tier 2 accounting with local factors for important pools should be required. Tier 1 should be encouraged for completeness, only for pools that are below the <i>de minimus</i> threshold.</p>	<p>Tier 1 would not be used for important pools or emission sources. The methodology requires that these are measured and so they will have actual uncertainty associated.</p> <p>I added the following: (where sampling has been conducted uncertainty derived from the sampling must be used).</p>	Addressed properly.	No further comment
2	<p>Step 1: If a project proponent has a factor for probability of deforestation (Equation 1), they cannot assume that the uncertainty is 0. Either eliminate the probability factor or calculate the uncertainty. Also, in previous section the Likelihood of deforestation was estimated.</p>	Agreed. See new text.	<p>New text has 95% Confidence interval whereas Step 2 has 90%, Is this a movement by ACR from 90% CI to 95%. With low precision and accuracy, uncertainty discounts give incentives to increase precision while maintaining</p>	This was a typographical error, now corrected.

	First review	Response	Second review	Response
			conservativeness.	
3	Page 34: First paragraph should be deleted, since is related to other methodologies.	Deleted.	Addressed properly.	No further comment
4	Page 35, Equation 9: Here, $Uncertainty_{BSL,RATE}$ is described, while in step 1 this uncertainty is assumed to be 0. There is a need for consistency on this term. Either the project counts on planned deforestation or it develops a probability estimate with an uncertainty around this probability term.	Now consistent	Addressed properly.	No further comment

## V. Monitoring with-project scenario

### V.A With-project stratification

	First review	Response	Second review	Response
1	Page 36: First paragraph: biomass must be measured at least every 5 years for APD as per above. This needs to be stated rather than 'every <10 years'.	Biomass stocks are only required to be remeasured when the baseline is reassessed which is every 10 years.	Addressed properly.	No further comment
2	Third paragraph: Is thinning allowed in APD? It seems that this is not accounted in the baseline scenario. If the intention is to include forest management and enhancement of C stocks in this methodology, then the crediting period will need to be longer than 10 years. Thinning inevitably leads to emissions, although re-	Mention of thinning has been removed. The paragraph now reads:  <i>Ex post</i> adjustments to with-project strata may be needed if unexpected disturbances	Addressed properly.	No further comment

	First review	Response	Second review	Response
	growth will re-sequester the C. But thinning is usually done to prepare a final crop of trees for harvesting.	occur during the Crediting Period (e.g. due to fire, pests or disease outbreaks), severely affecting different parts of an originally homogeneous stratum or stand, or when unexpected forest management (e.g. illegal harvesting) occurs. In such situations, the project area and/or leakage area affected by the disturbance and/or variation in forest management may be delineated as a separate stratum for the purpose of monitoring carbon stock changes.		
3	Paragraph 4: add “However merged strata must still satisfy the variance requirements of strata as defined above.” The actual wording will depend on decision about my earlier comment.	Now states:  However, merged strata must conform with all stratification requirements.	Addressed properly.	No further comment

### V.B Monitoring Project Implementation

	First review	Response	Second review	Response
1	Sec B, sub-sec 1: This section says actual C stock changes must be monitored, while Section 2, paragraph 2 says they do not have to be monitored.	Monitoring is required for baseline renewal but not for offset verification.	Addressed properly.	No further comment

	First review	Response	Second review	Response
2	Page 37: Section 2: It was not clear that enhanced sinks are allowed in APD. This should be stated in the section on the scope of the methodology. As noted above, a 10-year crediting period is not appropriate for a program that allows enhancement of C stocks. Earlier text suggests that this is not creditable. Again there is a requirement here to measure C stocks during the crediting period, contrary to earlier text.	Enhancement is not allowed. The only thing that is allowed is for projects to receive credit for the growth of trees that would otherwise have been cut and removed (deforested) in the baseline.	Addressed properly.	No further comment
3	Section 2, second bullet: Avoided degradation has a separate procedure. The methodology may want to refer the reader to that document here.	Deleted. Not appropriate to this methodology.	Addressed properly.	No further comment

### V.C Monitoring of Carbon Stocks and GHG Emissions

	First review	Response	Second review	Response
1	Is not clear why and how Avoiding Planned Deforestation project activity could induce to a deforestation and degradation (Equation 10). Once the project activity is implemented, it should be expected that the losses of carbon stock would be eliminated.	It should be expected that they are. But still there should be monitoring to show the stocks are still present. And if by some chance deforestation or degradation has occurred there must be some method of accounting.	Addressed properly.	No further comment
2	Page 38, Step 1: There is no call for ground truthing of the imagery interpretation.	It was there but not explicitly. To the existing text "The overall classification	Addressed properly.	No further comment

	First review	Response	Second review	Response
		<p>accuracy of the outcome of the above steps must be 80% or more”</p> <p>We have now added:  “as demonstrated through ground truthing or use of high resolution imagery.”</p>		
3	<p>P 41:  Equation 12: Wood products needs to be added, not subtracted for the same reason as above.</p>	<p>For the same reason as above subtracting is correct.</p>	<p>See question above</p>	<p>See response above</p>
4	<p>Paragraph 2: The assumption of Equation 12 is that HWP are sequestered for at least 100 years, so not all C is lost upon deforestation.</p>	<p>It is however conservative in the with-project case to assume 100% emission.</p>	<p>Addressed properly.</p>	<p>No further comment</p>
5	<p>Equation 13: Is not necessary a HWP term to be consistent with Equation 12?</p>	<p>No this is derived from CPES.</p>	<p>Addressed properly.</p>	<p>No further comment</p>
6	<p>P 42, Sec 2.2.1:  Paragraph 2: Delete ‘either’ from 2<sup>nd</sup> sentence.</p>	<p>Change made.</p>	<p>Addressed properly.</p>	<p>No further comment</p>
7	<p>Paragraph 3: PRAs are generally rapid assessments done by teams that “parachute into communities”. These do not seem like very effective instruments for understanding illegal activities. The feasibility of such approach seems very low.</p>	<p>It would not be perfect but would be part of a multiple level approach. The PRA only has to identify the possibility of degradation.</p>	<p>Addressed properly.</p>	<p>No further comment</p>
8	<p>Page 43, Paragraph 2: This buffer concept is new and should be introduced. Is it equal to the distance of penetration at each access</p>	<p>The area is not formally defined as a buffer. Here buffer is just used as a description. It is hard to</p>	<p>Be careful to describe this as something else as we have suggested in first</p>	<p>Thank you we incorporated your suggested edit.</p>

	First review	Response	Second review	Response
	<p>point where penetration is found, or equal to the maximum distance of penetration found and applied to all access points? The authors should also reconsider the term 'buffer'. On page 51, the document refers to an ACR buffer pool, which is a very different thing. Perhaps these areas of incursion could simply be referred to as 'degradation areas' and be treated as new strata in an <i>ex post</i> restratification. These areas are also likely to be dynamic over time and this reality needs to be properly integrated into the accounting system of the project over the long-term (i.e. beyond the 10 year crediting period).</p>	<p>see how it could be replaced while maintaining clarity.</p> <p>The area is dynamic and must be reassessed at each verification (at least every 5 years).</p>	<p>review.</p> <p>Buffer areas generally indicate transition areas of reduced economic activity around a core protected area.</p> <p>Perhaps try:</p> <p>The area subject to degradation shall be delineated (<math>A_{Deg,i}</math>) based on <u>the distance of incursion</u> from all access points</p>	<p>Certainly an improvement.</p>
9	<p>P 45:</p> <p>Equation 16: This gives the new area eligible in a given year, but total eligible area is the sum of new plus old eligible areas. In other words, if we are evaluating the project in year 5, the new area eligible in year 5 is given by the equation, but the total area eligible is the new area plus the areas that were eligible in years 1, 2, 3, and 4. The equation needs to be modified to indicate the sum of areas eligible in all years from year 1 to year t.</p>	<p>You are correct but this is done in equation 15. Equation 16 is a specific year. Summing happens in equation 15.</p>	<p>Addressed properly.</p>	<p>No further comment</p>
10	<p>Equation 17: Needs a HWP term to be consistent with preceding equations.</p>	<p>We disagree. Carbon stocks are what is present in the forest. HWP are dealt with separately. Enhancement requires the stocks to be there so wood products do</p>	<p>No enhancements in this meth so OK now.</p> <p>If you are using sec 2.2 for this then OK</p>	<p>No further comment</p>

	First review	Response	Second review	Response
		not count here.		
11	Page 46: Equation 18: The first two terms on the right side of the equation are not properly defined in the text below.	Corrected	Addressed properly.	No further comment
12	Last paragraph: refer only to steps 1 and 2 above.	Change made.	Addressed properly.	No further comment
13	Page 47: Step 3 d: The methodology should require an assessment of the likely effect of the change on the inventory.	Change made.	Addressed properly.	No further comment

### V.D Monitoring of Leakage

	First review	Response	Second review	Response
1	Section E should be a sub-section of Section D.	Correct	Addressed properly.	No further comment
2	The methodology should have a section on procedures to minimize leakage before the estimations.	This could never be complete and would be seen as proscriptive. We would prefer to leave this to PPs	Addressed properly.	No further comment
3	Also, not all REDD APD project activities will trigger a leakage. For example: If baseline is deforestation for road construction, then it is not necessarily the case that there will be any displacement of activity causing leakage.	Road construction leads to unplanned deforestation.  I believe all planned deforestation risks leakage.	See comments on road construction <i>versus</i> unplanned deforestation above; but the point is about displacement, not about unplanned deforestation.	I believe the method has to be applied to demonstrate no activity shifting. I can't see how otherwise there could be verifiable proof in this case....

	First review	Response	Second review	Response
			Indeed all deforestation risks some activity leakage; nevertheless the methodology should give project proponent the chance to demonstrate that there is no leakage attributable to the project activity; before go to any kind of estimation.  See also the comments below.	
4	Equation 19: This does not correspond to the description of the calculation given on page 48.	Section changed	Addressed properly.	No further comment
5	Page 48: The approach to leakage is seems to be impractical. It might be better to identify the local drivers of deforestation, undertake studies to assess how the agents responsible for local deforestation are affected by the APD project and assess their response. The proposed approach ignores all sorts of driving factors that could be responsible for increased deforestation that are not linked to APD activities. For example, if the protection of an area is successful, but a price signal elsewhere (e.g. the price of soy) in the economy spurs deforestation, this method would attribute the increased deforestation to the project. The approach to leakage should establish cause and	The approach is imperfect but we have to follow the displacement of activities. For classes of agents there is now a new approach which has been approved by two verifier organizations.	The point is to not penalize a project for actions it did not cause. So if there are several projects operating in a country for example, how do you attribute responsibility? If a project is operating normally and a government has a shift in land policy, how do you attribute responsibility? Is necessary to demonstrate cause in the method, or at least demonstrate that the project is not the cause.	We do agree with your point of view. This is why part 2 was added so that projects are not responsible for large deforestation that in reality had nothing or very little to do with the project.  If the agent of deforestation is directly identifiable then leakage is tracked directly.

	First review	Response	Second review	Response
	effect relationship for the agents responsible for displacement leakage (see also comment on Steps).			
6	Paragraph 1: How feasible is it for a project to acquire accurate country –wide data on deforestation by a set of agents, particularly when much deforestation is illegal? Brazil for example has good data on Amazonian deforestation, but the publicly available data do not indicate the fate of the land. Indonesia is even less well endowed with data and other areas of potential large deforestation emissions (e.g. the Congo Basin) have no reliable data on the fate of deforested lands. So, for example, if project proponents are doing a project on reducing deforestation for oil palm plantation on peatlands in Indonesia, it is unlikely that they will be able to find adequate data to implement this method.	See new approach for activity-shifting leakage.	Addressed properly.	No further comment
7	Page 49: Section 1.2 Option II: Likewise the availability of credible data to properly implement this approach is very limited, particularly in large countries.	See new approach for activity-shifting leakage.	Addressed properly.	No further comment
8	<b>Steps 2 and 3:</b> The current approach “freeze” the ability to expand. If $WoPR = D\% \text{ planned} * A \text{ planned}$ , then $NewR = 0$ and leakage will be always accounted; it doesn’t matter what was the reason for the expansion (even if is not related to the project activity).	See new approach for activity-shifting leakage.	Addressed properly.	No further comment

	First review	Response	Second review	Response
9	What if NewR is negative? Leakage should also be excluded?	<p><b>Text now states:</b></p> <p>If <math>NewR_{i,t}</math> exceeds <math>A_{defLK,i,t}</math> then <math>LKA_{planned,i,t}</math> should be set as zero as positive leakage is not considered under the ACR.</p>	Addressed properly.	No further comment

### V.F Estimation of Emissions due to Market Effects leakage

	First review	Response	Second review	Response
1	<p>This section need to be entirely revised. First, proponents need to explain how the REDD APD project activities could impact the market. In the CDM AR context, it was concluded that AR CDM projects activities could not impact the market in a scale that may trigger leakage. The REDD APD project activities will have such impact?</p> <p><b>Assuming that there is an impact</b>, the proposed approach is simply another way to address displaced activities, as the paragraph below the equation makes clear (also the statement on page 52). This approach does not address market leakage. Market leakage is the result of price signals that are sent through reduced production of a commodity due to limitations on deforestation. For example, reducing deforestation for oil palm plantations in Indonesia could lead to higher palm oil prices and Malaysia could respond by increasing land</p>	<p>In fact economic analyses have shown that even the most tiny interventions do have a market effect. If we look at the work of Murray and others they will claim the market effects leakage of AR are very significant.</p> <p>We do not want to require econometric analyses. Instead we have an approach that gives default deductions based on risk of leakage occurring (with the defaults developed by two of the preeminent land use economists).</p> <p>In reality we are only dealing with the limited situation of where deforestation is accompanied by timber harvest.</p>	<p>Knowing that Murray paper it is specifically looking at leakage for North America and temperate systems; the methodology definitely need similar market leakage analyses for a variety of regions. IF ACR is going to be taken seriously, they should advocate larger regional analyses to determine cause and effect related to major APD activities.</p> <p>The question is how to define and quantify the “levels of timber harvest substantially and permanently” that will</p>	<p>It is an endless balance with methodologies. Ideally we could and would leave a lot more to PPs to come up with their own forms of proof for things like leakage. However, this is not what verifiers want to see. They want to see a method that PPs must follow and be able to check that it was applied correctly.</p> <p>This is why we arrived at the default method given here. It is not perfect but it will likely be a minor deduction for APD projects as the</p>

	First review	Response	Second review	Response
	<p>areas under this crop.</p> <p>If the methodology truly wants to address market leakage, which is admittedly difficult, it needs to develop a methodology for establishing a cause and effect relationships that can be attributed to a specific project and then determine the leakage emissions.</p>		<p>trigger a leakage.</p> <p>The methodology should have a procedure that allow PP to demonstrate that market leakage is not an issue, even when deforestation is accompanied by timber harvest.</p> <p>If PP fail to demonstrate then market leakage should be estimated.</p>	<p>purpose is not timber extraction it is deforestation.</p>
2	<p>Logging is not the primary driver of land-use change in many parts of the world.</p> <p>The statement that "timber is the primary marketed commodity from planned deforestation projects" is simply not true. Deforestation for agriculture production / grazing may also result in market leakage. Timber is generally the primary commodity in degradation projects, but seldom are areas deforested just for timber. Deforestation is conversion for other uses.</p>	<p>Agreed areas are not deforested for timber but timber supply can be decreased by reducing planned deforestation.</p> <p>Text edited as follows:</p> <p>This procedure only addresses market effects leakage from lost timber harvest, considering that timber is an important marketed commodity that can result from planned deforestation projects.</p> <p>The standard does not require accounting of market effects leakage from agricultural commodities.</p>	<p>Addressed properly.</p>	<p>No further comment</p>

	First review	Response	Second review	Response
3	Where is demand elasticity factored into the leakage calculation?	Calculations could involve high level econometrics but would then greatly increase costs for PPs. What we have here is a simplification that is much more conservative than just ignoring market effects.	Addressed properly.	No further comment
4	Page 52: Where do these values for $LF_{ME}$ come from?	They are from the VCS. They were developed by Brent Sohngen and Brian Murray.	Should this be cited then? I would prefer to see Sohngen and Murray cited for their contributions here. We also would like to see some acknowledge of regional differences.	Now acknowledged in the footnote. We would love something more differentiated but the work has not been done and cannot fit within the financial remits of methodology development.
5	Page 53 – 54: The procedure for calculating uncertainty is incompletely described. Equation 27 gives the impression that uncertainties for stocks, fluxes and areas should all be lumped together into the same calculation. It seems that the uncertainties for the changes or emissions associated with each pool need to be assessed separately based on the uncertainty of the activity data and the emission factor. Then, these uncertainties need to be combined across pools and strata to generate an overall uncertainty (a modified approach as in Equation 28). So you probably need the weighted	The approach has been improved for summing across strata.  The pools and sources are evaluated separately the equation here is just for summing across.	Addressed properly.	No further comment

	First review	Response	Second review	Response
	average as in Equation 27 for each pool within a stratum. Then probably a weighted average across all strata, based on area. Then Equation 28 is appropriate. I may be wrong, but a statistician should look at this.			

## VI. Permanence Requirements

	First review	Response	Second review	Response
1	The ACR standard's requirement for dealing with reversal are more stringent than those required for this methodology (ACR requires a deductible to be paid, whereas this methodology only requires giving up remaining credits in the buffer, after year 10). This discrepancy needs clarification. What is the difference between the ACR standard and the REDD APD methodology?	<p>[ACR response]: Per the ACR Forest Carbon Project Standard, unintentional reversals of greater than a Project Proponent's buffer contributions to date net of refunds require the Proponent to pay a deductible and the shared buffer pool covers the remainder (unless the PP is using a different ACR-approved risk mitigation product). Intentional reversals (PP decision to discontinue the project before the Minimum Project Term) are treated as a "buy-out" requiring the PP to replace all ERTs issued up to the time of the intentional reversal.</p> <p>This methodology differs in that the PP is not required to monitor and verify for the full 40-year term, only for the Crediting</p>	Adequately addressed by ACR but no comments/responses from the APD methodology author.	It is not clear what additional response is needed beyond what was given by ACR?

	First review	Response	Second review	Response
		<p>Period (e.g. 10 years, if the PP does not elect to renew; 20 years if the PP renews once; etc). However the PP must continue monitoring and verifying for as long as the PP wishes to continue crediting and continue receiving buffer refunds. Once a PP ceases monitoring and verification, ACR retains all remaining buffer contributions, as per the Forest Carbon Project Standard. PPs who wish to renew the Crediting Period may do so and must continue monitoring and verifying; may be credited for additional baseline deforestation; and will continue receiving buffer refunds in the event of no reversals.</p>		
2	<p>Lack of crediting beyond the 10 year period will discourage activities that enhance C stocks.</p> <p>What happens if all C is lost in year 12, for example? This permanence requirement seems fairly weak.</p>	<p>Now have crediting beyond 10 years. And if projects want to receive their buffer credits back then they will have to keep monitoring, reporting and verifying through time.</p>	Addressed properly.	No further comment

## VII. Ex-ante estimation

### VII.G Calculation of Total Project Uncertainty

	<b>First review</b>	<b>Response</b>	<b>Second review</b>	<b>Response</b>
1	Why exclude any project with an error > 20%? If project proponent can account for uncertainty in the crediting system, why not accept these projects and simply require a large buffer as an incentive to increase the accuracy of monitoring?	We no longer exclude >20%.	It is important to allow projects with lower precision and accuracy, but require a larger buffer/ uncertainty discounts and incentivize projects to increase precision while maintaining conservativeness.	I believe this is what we are doing. This isn't a buffer discount it is a permanent uncertainty deduction. Perhaps you are missing equations 31 and 32?